

ROCKY FORGE NEWS

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NEXT MEETING:

The next meeting of the Rocky Forge Blacksmithing Guild will be March 8th at Ted's. The meeting will begin at 9:00.

Because of the large order for swage blocks, the manufacturer will deliver them to us on meeting day. They will also bring some of their other products, such as various sized cones, another swage block design and other blacksmithing tools.

Darrell Schultz will be presenting a program on African blacksmiths. Darrell has traveled to Africa several times and photographed the local blacksmiths and returned home with some of their work.

In the afternoon, if weather permits, we will fire up the forges and do some blacksmithing. If weather does not permit I will demonstrate some of the things learned during a blacksmithing class at Conner Prairie.

Carol will not be here on Saturday so we are going to fend for ourselves for lunch. Plan on bringing a sack lunch or go to West Point. Looks like a busy day ahead so come early to enjoy the fun and fellowship with other smiths.

ELECTION OF OFFICERS

Time flies by when we are having fun. The Rocky Forge group was formed last February and this past year seemed to fly by. It is time to elect officers for the group. Election will be for a forgemaster, secretary/reporter, and treasure. A new position, safety officer, is appointed not elected. That position is currently held by **Rob Durrett**.

Think about nominations for the officers so that we can have an easy election and smooth transition.

IBA REQUESTS FOR SATELLITE GROUPS

The Indiana Blacksmiths Association (IBA) has mailed a packet of information to the forgemasters of all the satellite groups requesting a few things that we need to discuss.

I have included the cover letter of this mailing in the newsletter so that you can read it and be prepared to discuss it at the next meeting.

GREEN & MENGEL SWAGE BLOCKS

The swage blocks we ordered were designed by a blacksmith organization in Pennsylvania. They brainstormed what might be the most useful depressions to include in a block then made a pattern. **Steve Mengel** and **Eric Green** took the pattern and have contracted a foundry to make the swage blocks and cone mandrels. These tools are referred to as the Green-Mengel swage blocks or cone mandrels.

Originally, when discussion about an order with them was at about 10 blocks they gave us a discounted price, but we had to pick them up at their site in eastern Penn. or pay the shipping. At last count the order was for 26 blocks and interest in some cone mandrels. With this larger order they have eagerly agreed to deliver the blocks.

They not only will deliver the blocks, but they will also bring an assortment of cone mandrels and other blacksmithing tools.

The plan for Saturday is to do our business early in the day with these guys (they may want to start back early) then have our regular meeting afterward. **Darrell Schultz's** talk on African blacksmiths will follow a short meeting.

ROCKY FORGE BLACKSMITH GUILD

Report of February 8, 2003 Meeting

The "Rocky Forge Blacksmith Guild" met February 8th at Nucor Steel, southeast of Crawfordsville. Our attendance was 27, including several members' wives and guests **Harold Frost, Jim McClure** and **Dave Wells**. After a brief meeting of the Rocky Forge business three Nucor Steel guides led us on a tour of the steel manufacturing facility. It is hard to describe the magnitude of what we saw that day. To experience the site of 130 tons of scrap steel being dumped into a crucible that already contains 20-30 tons of molten metal was literally earth shaking!!! The building shook and continued to shake as the electric arcs began the task of melting the whole charge. Huge electrodes were lowered into the mass and the fireworks were well underway. Most of us just stood there in awe, watching an everyday event for the workers, but an event seldom seen by the public. To this day we are still talking about our experience. Because Nucor uses electric arc heating to melt the steel their monthly electric bill runs about \$2,000,000.

After the charge was melted we learned how the molten mass is transferred to another station and the chemistry adjusted to meet specifications. Analysis for about 20 components can take less than 5 minutes. That too was interesting, for example, if the charge was high in sulfur they add a charge of aluminum, which combines with the sulfur and is blown off as a gas, then scrubbed and collected.

The continuous casting is just what is says, the molten metal is continuously poured into a continuous casting system. The result is an endless slab about 3 feet wide and 3-4 inches thick. It is cut about every 140-160 feet. Each section is rolled to a thickness of 1/2" or less and rolled into a coil while still red-hot. Coils weigh about 40,000 pounds. The area where the coils are rolled and stored is not for the heat sensitive person.

After a wonderful lunch in the Nucor conference area we toured the cold rolling area. That is where the metal is uncoiled and rolled to thickness according to their orders. No stock is

inventoried, what is made is already sold. In this area they also do some galvanizing.

Nucor processes sheet iron and stainless steel for use in the auto, appliance and building markets.

We are very grateful to our member **Dan Michael**, an electrical engineer with Nucor, for arranging this tour.

As you approach the Nucor plant it is hard not to be impressed by the huge piles of scrap metal, acres and acres. We tried in vain to get the okay to have an iron-in-the hat out there but they just would not allow it.

DRAWING OUT (A BASIC BLACKSMITHING STEP?)

Drawing out a piece of hot steel is a fundamental step in many operations of blacksmithing. It is probably one of the most useful, yet one of the least understood. Here is a brief introduction: To draw a section of 1/4" or smaller stock, it should probably be done on the anvil table (top). To draw a larger section, say 1/2", start by pounding the section over the horn or a fullering hardy. Doing the initial drawing over a rounded edge offers less resistance and the metal will flow in the direction of the long axis. Use the rounded side of a turning hammer. Rotate the stock 90 degrees at least every 2nd blow and concentrate more blows out toward the end where the most drawing or point will be. Next heat, take the metal to the anvil face and do full face blows with the metal sticking out over the far edge, pound rotate, pound rotate, etc. As the drawing occurs pull the metal toward you so the final drawing is done on the face, i.e. not extended over the far edge. During the whole operation of drawing keep the stock squared. Once the stock has been drawn out to where you want and your final product needs to be round, start by making it 8 sided. This is done by knocking down each corner of the square until all sides are nearly equal. From an octagon start rotating the stock as you hit it so as to form a round. This final work is typically safer if done at lower heat than the initial drawing out. The lower heat helps prevent accidental burning of the tip, less scale and easier control to give a better looking final product. Hope this helps and if you need further discussion see me at the meeting.